THE MODERNIST RADIO STUDIO

modernist-radio.com

RADIO TODAY

The options, right now, for modern broadcast radio are simply amazing.

We have tools that enable real-time sources from anywhere you can think of available to you anywhere you happen to be. The notion of a 'remote' is almost a thing of the past as broadcasters embrace the freedom to be omnipresently live. We carry devices in our pockets that let us broadcast from wherever we are to wherever we want to be.

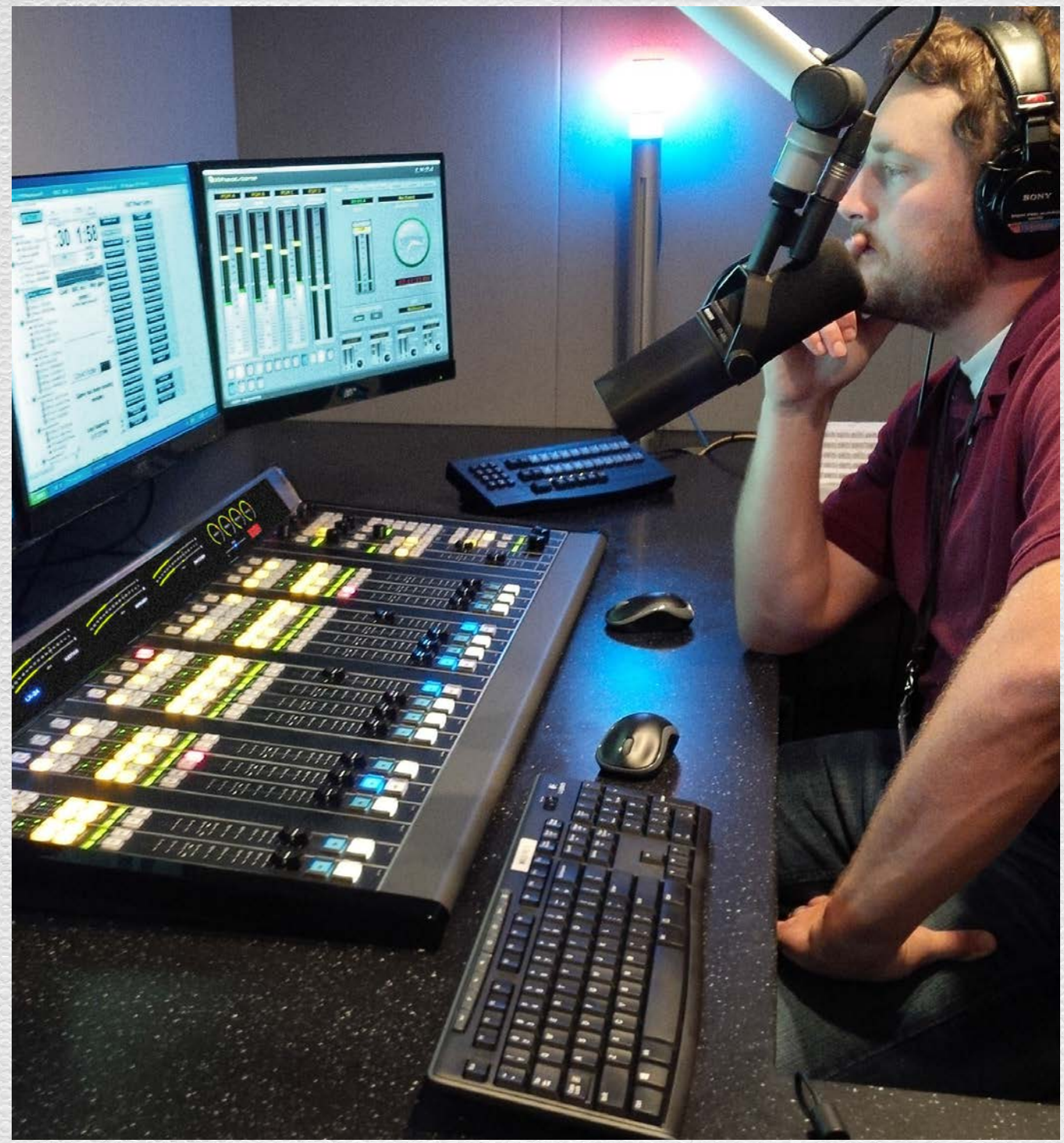
Modernist radio is a relatively new world with incredibly cool stuff, field-proven with thousands of stations adopting this system since 2009.

Some use the technology to feed networked automated program material to local audiences. Some use it to provide rich local coverage that emulates social networking. And some use it to get inside news stories as they break or to present local entertainment as it happens.

Modern engineers have honed new skill sets and have come up with truly ingenious ways to harness the equipment and technology that makes it all possible. We see workflows available that we'd never even dreamed of. Bottom line, this modernist, intelligent network is the most robust, reliable system there is and upgrading – even from earlier AoIP systems – is both affordable and easy. We'd love to show you....

WHEATNET IP

THE INTELLIGENT NETWORK


SONY

CONSOLES

CONTROL YOUR UNIVERSE FROM HERE

In the modern radio studio, consoles expand your reach beyond your four walls. Today's consoles are control surfaces that interface, with a single CAT-6 cable, to your entire facility and well beyond.

ONE CONSOLE IS MANY CONSOLES

With the ability to store custom configurations, as well as having modular construction, your console can be set up to be exactly what each user needs it to be. This ensures that the console is perfectly suited to your studio and that everything functions exactly as each user needs every time they sit down to work.

ACCESS THE WORLD AND PUT IT ON THE AIR

You are not limited to what you can plug into the console in your studio. Any audio plugged in anywhere on the network is accessible from any channel on the console. Just dial it up and push a button to put it on the air. Seriously cool stuff.

CONSOLES COME IN ALL SHAPES & SIZES

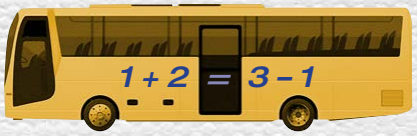
On-air; production; dedicated announce applications. Each one has its own specialized functions set that are best addressed by the proper form and feature set. Because all consoles are control surfaces that work with the network, they can be as small or large as necessary. They can even be virtual.

HOT-SWAPPABLE MODULAR CONSTRUCTION

All channels on most modern consoles are individual strips. Each can be replaced if needed without powering down the board - meaning you never go off the air. Same with the network BLADEs (see next page).

3RD PARTY EQUIPMENT CONSOLE CONTROL

Automation, CD-Players, Codecs, Processors - you name it, you have control directly from the console. ACI (Automation Control Interface) allows companies to make their gear interact with the network. Soft and accessory buttons make customized control easy.



BUS-MINUS IS MIX-MINUS ON STEROIDS

Bus-minus creates, with perfect digital accuracy, a version of any console bus minus the selected fader's audio. It does this without requiring a dedicated mix-minus bus or operator interaction.

THE NETWORK

THIS IS YOUR UNIVERSE

Today's modern studios are completely interconnected to allow all source material to be accessible to all the control surfaces and other devices on the network. This means that literally anything is possible with the twist of a dial. The single-space rack units used for engines, I/O, and processing on the network are called BLADEs, and each BLADE has a TON of flexibility built right into it...

ROUTE 66 OR ROUTE 66,000...

The ways you can move things around the network are limitless. The modern network provides powerful ways of modifying signal routing easily - even from remote locations. Rule your world from your easy chair.

DIGITAL FROM START TO FINISH

With modern technologies such as **baseband192**, you can extend your network all the way from your inputs to your transmitter completely in the digital domain. Built into **AirAura X3, FM-531HD and VP8-IP** processors, **baseband192** is absolutely seamless to use.

A SOURCE IS A SOURCE OF COURSE OF COURSE...

Modern networks carry audio and control information to wherever it's needed on the network. You can have audio sources all over your facility, coming in from anywhere. Just plug them into an appropriate BLADE to make them accessible to the network. Once there, they are everywhere.

GIGABIT ETHERNET KEEPS THINGS ZIPPING ALONG

When you consider the amazing number of audio and control signals, including processing, that run around a modern network, it's clear that you need fast ethernet and smart management to ensure seamless functionality. It helps if your network knows when to throttle that back to 100baseT for logic functions.

SCRIPTING MAKES ANYTHING POSSIBLE

If you can think of it, chances are good your network can do it. Imagine – an EAS signal comes in and the system pauses the music for an emergency weather broadcast, while triggering an RDS or HD data message targeted to a specific range of GPS coordinates that happens to track to your smartphone. How 'bout scripts to trigger processor settings for specific material. We even heard from someone who scripted his system to inform him if his morning talent overslept (really!). Essentially, you can do ANYTHING with scripting, built-in functions and programmable buttons on the modern network.

INTERFACE WITH A SINGLE CAT-6 CABLE

Interfacing your network is as easy as plugging in a CAT-6 cable to your gear and turning it on. The cable carries IP information, audio AND control layer for full logic control of everything on the network. One cable. Whoa!

THE DNA OF THE ENTIRE NETWORK IN EVERY BLADE

Every setting for every network device is stored inside every BLADE. Handy, if you ever need to replace a BLADE. Just plug it in and it learns from the network! This is redundancy at its finest.

SILENCE DETECTION KEEPS YOU LIVE

Should you lose audio, every BLADE on the network can detect and reroute. BLADEs can even play pre-programmed material from a card you format for their SD Card slots. With scripting, you can, dare we say it, rule the world.

TWO 8X2 STEREO VIRTUAL UTILITY MIXERS

These can be used for a wide range of applications. For example, using Wheatstone's ACI Automation Control Interface, your automation system can control the mix for satellite or local insertion switching. These can talk directly to control surfaces, as well, to greatly increase the range of your network.

PROCESSING

SHAPE YOUR UNIVERSE ANY WAY YOU WANT

Modern processing can 'listen' to your source material, determine how much it's been manipulated or pre-processed, and know exactly what to do to make it the cleanest, loudest signal on the dial. It provides tools for intelligent and musical compression across the same third-octave frequency spectrum used in creating recordings. And when it's done, it can digitally inject that straight into your transmitter, giving you a 100% digital air chain that's actually received in better stereo than ever before.

REPEATABLE SETTINGS, I SAY, REPEATABLE SETTINGS

With modern digital processors, you can literally input the exact settings you want. And they will be there every time you need them. And with no long-term aging of circuits that, in the analog world, used to change the sound, you will get that same, perfect sound each and every time

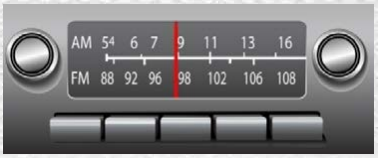
PLEASE... PASS THE PRESET

Once you've honed your presets and have them exactly where you want them, it's easy to share them with other users. All settings in a modern processor can be shared in a little file that can be copied or emailed to other users.

CONTROL IS REMOTELY AND AUTOMATICALLY POSSIBLE

Most modern processors can be located anywhere and remotely controlled from anywhere in the world. And they can now switch to different presets (even commanded by automation) when the program changes.

PRESETS, PRESETS AND MORE PRESETS



There are dozens of presets now in most processors, featuring the efforts of people who have spent thousands of hours listening to all sorts of music from all sorts of formats in all sorts of markets. There is truly something for everyone.

ANALYSIS DOESN'T ALWAYS MEAN SHRINKING...

Modern audio processors give you analysis tools right there in the processor; no need to bring extra gear to test your signal. These analysis tools make it easier to setup your processing and get the exact settings and sound you want.

NEW METHODS FOR BETTER STEREO RECEPTION

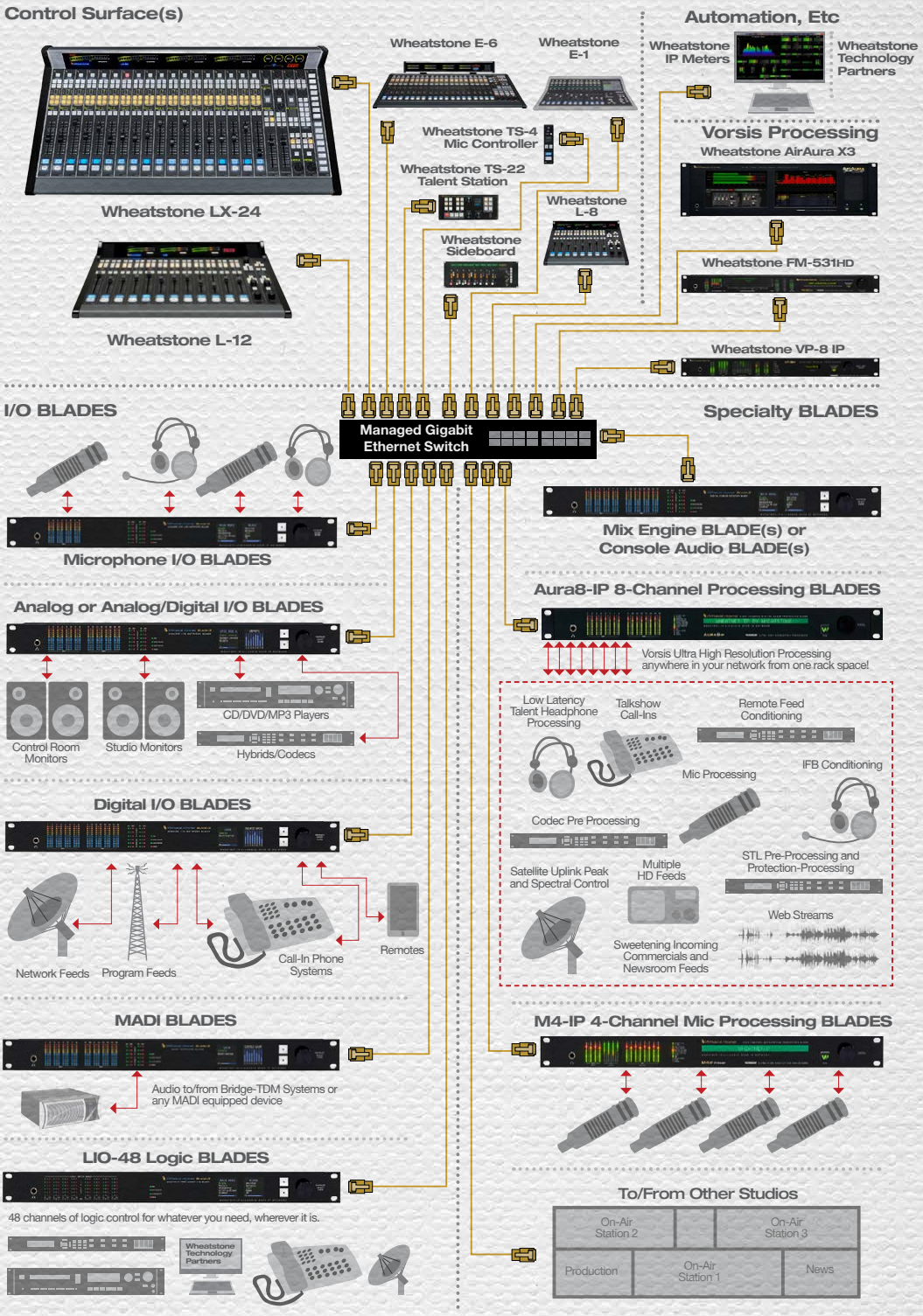
Through innovative algorithms like the modern processor's Multipath Limiter, we can help the receiver actually decode a signal that is cleaner and more consistent, and reduce issues to analog FM stereo broadcasts like multipath and audible receiver blending.

THE BEST SOUND, OF COURSE

The modern processor can do a lot more than just level, compress, limit, and clip – it can help your PD and engineer create a sonic signature by giving you greater control than ever before. For the flexibility of a modern broadcast facility it can become a part of an advanced AoIP network so you can easily route backup audio or switch different studios to air. For your listeners, it can improve their experience by presenting audio that is closer than ever to the source while reducing FM stereo annoyances. For engineering, your new processor can make setup and deployment easier than ever so they can focus on other aspects of their broadcast facility. It's a brave new wonderful world.

THE AUDIO ECOSYSTEM

Curious about the way it all fits together? This illustration should give you some ideas....



MODERNIST COMPONENTS

The ultimate collection of the finest gear in the industry, perfectly crafted in the USA to fit any studio in the world

CONSOLES

LX-24
the ultimate air/production console

L-12
elegant 12-channel on-air console

L-8
elegant 8-channel on-air console

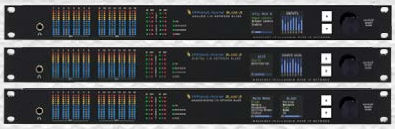
E-6
state of the art on-air console

E-1
on-air/production console
with built-in display

Sideboards & Talent Stations
perfect solutions for specific applications

NETWORK BLADES

Engine BLADEs
the power behind the consoles



Analog & Digital I/O BLADEs
the way you interface your gear

Microphone BLADE
8 great mic preamps

MADI BLADE
interface 64 MADI I/O channels

Logic BLADE
48 individually configurable
universal logic ports

IP Meters • Glass-E
software for monitoring and control

PROCESSING

AIRAURA X3
the ultimate on-air processor

FM-531HD
essentially AIRAURA, but with control
through GUI (no large front panel display)

VP-8IP
cost-effective multi-mode digital processor
with lots of cool features

AURA8-IP
eight channels of digital processing available
anywhere on the network

FM-55
rugged, cost-effective FM processor

SG-192
baseband192 digital multiplex generator

M4-IP
four channels of digital voice processing
available anywhere on the network

M-1 & M-2
single and dual channel voice processors

Wheatstone

wheatstone.com
modernist-radio.com

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REFERENCE

Want to learn more? There is a wealth of reference material on the subjects listed below.
And we LOVE to talk about this stuff. It's in our blood....

White Papers about the WheatNet-IP Intelligent Network:

- **Network Design Considerations For Ethernet Audio**
- **The Business Case For The Intelligent Network**
- **The Technical Case For WheatNet-IP**

White Papers about Processing:

- **The Case For The AirAura, The 'Radio Clean Machine'**
- **Wheatstone Baseband192 White Paper**
- **Audio Processing State-Of-The-Art**
- **Processing Smarts - Tips From The Experts On Radio Processing**

The above White papers may be downloaded at: **http://whitepapers.wheatstone.com**

The following websites have a great amount of information...

Wheatstone Consoles and the WheatNet-IP Intelligent Network:

- **http://wheatstone-radio.com** (a complete overview of consoles and networking products, and news)
- **http://wheatip.com** (a technical treasure trove about AoIP networking)

Wheatstone Processing:

- **http://wheatstone-processing.com** (a complete overview of processors and news)
- **http://vorsis.wheatstone.com** (a technical tour de force about processing)
- **http://baseband192.wheatstone.com** (a complete overview of this digital end-to-end solution)

LET'S TALK...

We can grab a donut and a cup of coffee and talk about how your station can become a modernist radio studio, ready to take it to the next level – the one that's going to last you the next 25 years or more.

Get to know us... 252-638-7000 or wheatstone.com

Visit modernist-radio.com for an expanded, interactive experience.

Wheatstone

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